

*ms*  
*B11* § 119 of German Patent Application No. 199 15 722.7 filed April 8, 1999.

BACKGROUND OF THE INVENTION



Field of the Invention---

*Please enter the following new subheading before paragraph [0002]:*

---2. Discussion of Background Information---

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*Please enter the following heading and amend paragraphs [0004] and [0005] as follows:*

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---SUMMARY OF THE INVENTION

*B2* [0004] The present invention provides a better join between the warp threads and the weft threads without requiring additional fixing threads or stronger fixing threads.

[0005] In accordance with the invention, in the regions in which the weft threads cross the warp threads, the lengths of the meshes of the fixing threads are markedly shorter than in the regions which are therebetween.---

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*B3* ---[0006.01] The present invention is directed to a textile mesh structure including linearly extending warp threads, linearly extending weft threads positioned substantially at a right angle to the warp threads, and fixing threads arranged to join the warp and weft threads. The fixing threads are applied by warp knitting to form a thread meshes, and the thread meshes are arranged to extend around the warp threads over an entire length of the warp threads and

around the weft threads in a region in which the warp threads and weft threads intersect. The warp threads and the weft threads are arranged one of individually or in groups at relatively large spacings in order to form internal widths. In the regions in which the warp thread and the weft threads intersect, lengths of the thread meshes are shorter than in regions between the intersect regions.

**[0006.02]** According to a feature of the invention, the textile mesh is structured as a geomesh.

**[0006.03]** Further, the lengths of the thread meshes in the intersect regions are at least 50% shorter than the lengths of the meshes between the intersect regions.

 **[0006.04]** In the intersect region, the lengths of the thread meshes are structured and arranged such that a mesh is associated with each weft thread. Moreover, the weft threads are arranged in weft thread groups including a plurality of weft threads, and the lengths of the thread meshes are structured and arranged such that a mesh is associated with each weft thread of the weft thread group.

**[0006.05]** According to another feature of the invention, a fixing thread is associated with each warp thread to form a warp mesh.

**[0006.06]** The warp threads are arranged in warp groups including at least two warp threads positioned in closer relation to each other than to adjacent warp groups. Further, a joining thread is arranged in a zig-zag configuration to prevent lateral displacement of the

warp threads of the warp group. The fixing threads of the warp group are associated with each warp thread. Moreover, the joining thread extends in a zig-zag configuration to prevent lateral displacement of the fixing threads.

**[0006.07]** According to still another feature of the instant invention, a non-woven material layer is included, and one of the joining threads and the fixing threads are one of knitted on applied by Raschel knitting to join the warp and the weft threads to the non-woven material layer.

*mm B. 3*  
**[0006.08]** The present invention is directed to a process for forming a textile mesh structure including linearly extending warp threads, linearly extending weft threads at substantially a right angle to the warp threads, and warp knitting fixing threads to join the warp and weft threads, such that thread meshes are formed. The thread meshes are arranged to extend around the warp threads over an entire length of the warp threads and around the weft threads in a region in which the warp threads and weft threads intersect, and, in the regions in which the warp thread and the weft threads intersect, lengths of the thread meshes are formed to be shorter than in regions between the intersect regions.

**[0006.09]** According to a feature of the instant invention, the warp threads and the weft threads are arranged one of individually and in groups, such that, spacing between threads in a group is smaller than spacing between adjacent groups.

**[0006.10]** In accordance with another feature of the invention, the process includes

arranging a joining thread in a zig-zag configuration to prevent lateral displacement of the warp threads of a warp group.

[0006.11] Moreover, the process includes arranging a joining thread in a zig-zag configuration to prevent lateral displacement of the fixing threads.

[0006.12] In accordance with still yet another feature of the present invention, the process includes joining the warp and weft threads to a non-woven material layer. Further, the joining includes one of knitting on and applying by Raschel knitting.---

*Please enter the following new heading before paragraph [0008]:*

---BRIEF DESCRIPTION OF THE DRAWINGS---

*Please enter the following new heading before paragraph [0012]:*

---DETAILED DESCRIPTION OF THE INVENTION---